

CHAPTER 3

QUALITATIVE RESEARCH

The Qualitative Subgroup included EPA staff, the CLI Task Force, and the EPA Partners. (See Appendix 1-6 for the complete list of Qualitative Subgroup members.) The Qualitative Subgroup used the results from the Phase II quantitative research performed during the summer of 1998 (for details, see Chapter 2) to determine the content of the qualitative testing. This quantitative research performed during April and June 1998 found that consumers generally do not read environmental information on product labels for outdoor pesticides, household cleaners, and indoor insecticides. Survey respondents did indicate, however, that a standardized *format* would help them to understand label information.

The Qualitative Subgroup decided to perform qualitative consumer research, in the form of focus groups with consumers, to examine label format issues and consumer motivations and behavior in depth. (See the section that follows on “Research Design” for more information about the structure of focus groups.) The Qualitative Subgroup used several types of input to develop seven “key learning objectives,” which were intended to guide the qualitative research. Inputs included the CLI Stakeholder comments gathered during Phase I research, the results of one-on-one qualitative interviews performed during Phase I, and the quantitative research completed in Phase II. The key learning objectives for the qualitative research, and the assumptions on which they were based, follow:

Qualitative Research Learning Objectives — Determine:

Consumer *preference* for a specific format for the presentation of standardized information. This is based on an assumption that a comparison is needed to test consumer preferences between a “box” format and other standardized designs of information grouped together, for example standard short phrases, with the same information content. This also assumes that it is possible to have more than one “box” or other standardized information presentation format on a given label.

Consumer *understanding* of the same information presented in different formats. This is based on an assumption that a comparison is needed to test whether one format does a better job than others of improving consumer comprehension of the information presented.

Consumer *preference* for which information should be presented in box(es) or other standardized formats of information groups together. This assumes that an interactive interview method will be used; for example, giving participants the opportunity to arrange information on a Velcro board. This also assumes that it is possible to have more than one “box” or standard format on a given label, because consumers may look for different information at different times or decision occasions.

Consumer *preference* for where particular groupings of information should be located on the product label. This is based on an assumption that certain information should be grouped together in a box or standard format(s) and that this grouping or groupings could be located on the label by decision occasion, that is, collecting information sought at the time of purchase, the time of use, or when storing or disposing of the product. This also assumes that it is possible to have more than one box or standard format on a given label.

Consumer *understanding* of the existence of a hazard hierarchy in the signal words CAUTION, WARNING, DANGER, when conveyed graphically, and of the point in the hierarchy on which a given product falls. This is based on the assumption that a graphical presentation of the hierarchy may improve consumer comprehension of the meaning of the signal words, and that different representations may have different degrees of success in conveying this information. Various graphical interpretations should be tested, including such things as a variegated color bar graph, thermometer, traffic light, etc., where the image includes a pointer or other device to indicate where on the progression the specific product fits.

Consumer *preference* for a particular graphical representation of the CAUTION, WARNING, DANGER hierarchy and product status information. This acknowledges that *preference* may or may not relate to the effectiveness of a particular design in correctly conveying *understanding* of the hierarchy information.

Consumer *understanding* of the association between the product ingredients, the hazard(s), and the relative hierarchy. This is based on an assumption that consumers will better understand the importance of the safe use of products if safety-related information, including environmental, hazard, and hierarchy information, is presented together.

The EPA sent out a Request for Proposal (an official document published in the *Commerce Business Daily* to identify qualified organizations that conduct qualitative research). The Newman Group, Ltd., was contracted to work with EPA. EPA funded the qualitative research.

Research Design

The strength of qualitative research is that it can be used to identify specific areas of investigation that may have not been considered previously, or issues of concern to specific populations. Qualitative research may also be used to “frame” issues — that is, investigate ways to approach issues — or explore ways to word survey questions. It can also be used to further explore quantitative data.

It is important to recognize that results obtained from qualitative research *cannot* be generalized to a larger population, because qualitative research does not produce statistically significant and projectable findings. It is important that qualitative data not be misinterpreted or misrepresented in quantitative terms. For example, the statement “9 of the 12 participants interviewed” should not be interpreted as meaning “75% of the population,” because this would incorrectly indicate that the 12 participants who were interviewed represented a statistically accurate sample. Any findings from qualitative research should be validated if needed using quantitative methods.

Qualitative research methodologies share certain elements:

- # a trained moderator;
- # specific recruitment of study participants who qualify, based on detailed screening criteria; and
- # a discussion guide designed to obtain the answers to the key research questions.

The qualitative research for Phase II of the CLI was designed to find out more about how consumers respond to various types of information and formats presented on the labels of outdoor pesticides, household cleaners, and indoor insecticides, and to probe in more depth some of the information received from the written surveys. The research design consisted of a series of “mini” focus groups with users of outdoor pesticides, household cleaners, and indoor insecticides. The mini focus group format (three to five participants) was thought to be the most useful for gaining a more in-depth understanding of consumers’ reaction to a variety of label designs. The mini focus group environment allows for greater participation by each respondent than does a larger focus group (usually about eight to ten people). A small focus group also allows people to ask questions of each other and have more free-flowing discussions. The Qualitative Subgroup felt that the CLI could learn more from this type of discussion than from a question-and-answer or one-on-one interview format.

Recruitment Criteria

Only product users were included in this study, to ensure that group participants would have some baseline familiarity with product labels. This knowledge could be used as a benchmark to probe participants’ understanding of and reaction to the labels presented during the groups. A decision to include non-users would have introduced too much variability into the study design.

Three cities were selected for the research: Ft. Lauderdale, FL; Dallas, TX; and Chicago, IL. These locations are known to have a large insect population that affects consumers, and therefore

many consumers in these areas purchase and use indoor insecticides and outdoor pesticides. This large consumer base was expected to make selection of group participants easier.

Participants were recruited by telephone, using a recruitment screening questionnaire that clearly identified them as product users for one of the three selected product categories. (The recruitment screening questionnaires are reproduced in Appendix 3-1.) Recruiting specifications for each product category follow:

Mini Focus Groups to Discuss Outdoor House and Garden Pesticides

Men and women who were most responsible for the purchase and usage of outdoor house and garden pesticides were recruited for these groups. Qualified respondents had purchased an outdoor house and garden pesticide at least once in the past six months, and had used the purchased pesticide at least once. These people were treating a broad range of insect types (e.g., the Florida groups included some people who were treating fire ants). A few people who used weed-and-feed combination products (fertilizer and insecticide) were included. People were recruited to represent a variety of demographics (age, work status, home owner/renter, occupation, and gender, within each mini-group). All professional lawn service providers, exterminators, and farmers were excluded from these groups, so as not to bias the responses of the other participants, since these groups receive specific training on these types of products..

Mini Focus Groups to Discuss Indoor Insecticides

Men and women who were most responsible for the purchase of indoor insecticides for their household were recruited for the mini focus groups on indoor insecticides. Qualified respondents had seen ants, roaches, or fleas in their residence, had purchased an indoor insecticide at least once in the past six months, and had used the insecticide purchased at least once. People representing a variety of demographics (age, work status, home owner/renter, occupation, and gender, within each mini-group) were recruited. All professional exterminators were excluded from this research so as not to bias the responses of the other participants.

Mini Focus Groups to Discuss Household Cleaners

Men and women who were most responsible for the purchase and use of household cleaners were recruited for these groups. Qualified respondents had purchased a household hard surface cleaner at least once in the past six months, and had used the product at least once in the past month. People representing a variety of demographics (age, work status, home owner/renter, occupation, and gender, within each mini-group) were recruited. People who worked in professional cleaning services were excluded to prevent any professional bias, based on familiarity or training with the products.

All Groups

Additionally, the recruits for all three types of groups met the following criteria:

- # they had not participated in another focus group within the past six months;
- # they had not personally been employed, or had immediate family employed, in advertising, marketing research, manufacturing, sales, or distributing of indoor insecticides, outdoor pesticides, or household cleaners;

- # they had passed a project articulateness check (see the last question on the recruitment screening questionnaire);
- # they included a mix of responses to the question about whether or not they read labels for the product category discussed;
- # they included a mix of families with and without children;
- # they included a mix of families with and without pets;
- # they included a mix of families who were light or heavy users of the product category; and
- # they included a mix of urban and suburban dwellers.

Development of the Discussion Guides

The Qualitative Subgroup members and The Newman Group, Ltd. jointly developed discussion guides to be used in moderating the mini focus groups. The discussion guides were designed to obtain as much information as possible that would address the seven key learning objectives mentioned at the beginning of this chapter. The guides were designed to encourage relatively open-ended conversation, allowing consumers to discuss their actual experiences when reading and using labels. Copies of the discussion guides for each product category appear in Appendix 3-2.

Due to the fluid, qualitative nature of focus group research and to the fact that 27 groups were held, topics sometimes were approached in an order other than that described in Appendix 3-2, or were worded in a slightly different manner. Also, the discussion guides were refined throughout the course of the research, which enabled later groups to discuss new issues and view different ways of expressing concepts on product labels. Not all groups discussed every issue that is mentioned in this chapter.

Process of the Mini Focus Groups

A total of 27 mini focus groups were held, involving 112 participants. Each group included three to five people. All groups were moderated by The Newman Group, Ltd. Participants were encouraged to talk freely and initiate conversations with each other, as well as to respond to the questions posed by the moderator. Each group met for between 90 and 120 minutes. Verbatim written transcripts, videotapes, and summaries were made of all sessions for the express purpose of writing the findings report.

Table 3-1: Number of Mini Focus Groups for Each City and Product Category			
Area	Ft. Lauderdale	Dallas	Chicago
Indoor Insecticides	3	3	3
Outdoor Pesticides	3	3	3
Household Cleaners	3	3	3

“Mock labels” were created for the focus groups, in order to show representative label features and concepts to guide and spark discussion (see Appendices 3-3 — 3-6). These mock labels gave consumers an opportunity to personally examine many variations of product label information and provide immediate feedback. None of these mock labels existed for use on any existing products. They were produced for the mini focus groups by manufacturers of the product categories being discussed. The mock labels underwent some changes throughout the course of the groups, as people made suggestions or expressed opinions related to the graphical representation or signal words and the use of boxes.

During each session, after some preliminary information on labeling was obtained, the moderator asked participants to refer to certain mock labels from their packet to coincide with a specific section of the discussion. By the end of the discussion, participants had viewed all of the mock labels for their product category. The order in which the different sections of labels were discussed was intentionally varied from group to group, so as not to encourage any particular “position bias.” (For example, if the Ingredients section was discussed first in one group, it was discussed second in another group.) The participants were told that at any time they could say they preferred the “Control Label,” which represented the typical way labels in the category were currently being designed. Also, during some of the later sessions, participants were asked to evaluate certain precautionary phrases that appear on labels (see Appendix 3-8).

At the end of each session, a short amount of time was devoted to obtaining participants’ input on various draft logos (see Appendix 3-7) for a proposed “Read the Label *FIRST!*” Consumer Education Campaign. (Chapter 6 discusses the CLI Consumer Education Campaign in more detail.)

The topics that follow discuss the reactions of participants in the mini focus groups to different types of label information, including Signal Words, Directions for Use, and Precautionary Language. The participants also discussed alternative formats for label information. A list of the mock labels used for each topic appears at the end of that section. The actual mock labels that participants discussed can be found in Appendices 3-3 — 3-6. (Appendix 3-3=mock labels shown for signal words; Appendix 3-4=mock labels for outdoor pesticides; Appendix 3-5=mock labels for household cleaners; Appendix 3-6=mock labels for indoor insecticides.)

Findings from the Mini Focus Groups

This section summarizes the most notable overall findings from the mini focus groups, and includes selected illustrative quotations from participants. Text in [square brackets] was added by the moderator to clarify the comment. At the end of each quote readers will find the category of product being discussed, the time of the mini focus group, and the state in which it was held.

Past Experience and Product Selection

At the start of each mini focus group, and before any mock labels were introduced, the moderator asked the participants to talk in general about their past experience with reading labels. They discussed the following issues:

- # why they did or did not tend to read product labels;
- # in what situations they tended to read labels in general, and specifically when they tended to read labels on the category of products they had been recruited to discuss;
- # what they looked for when they read these labels;
- # how satisfied they were with the information that was currently available;
- # whether the information was easy to understand;
- # whether they would have liked to see any additional information on these product labels; and
- # whether they could suggest any format or presentation improvements.

Reading Labels and Implications of Not Reading Labels

In general, the more familiar a participant was with a product, the less compelled s/he might feel to read the label. If someone had repeatedly used a product with success, s/he might not consult the label unless something about that product changed, the container was redesigned or looked different, copy on the label said “new and improved”, or a problem had occurred with past use.

Some participants commented:

“Well, I know I only read them for the use. I’ll usually do that at the store. I don’t sit there and read every sentence or anything, but I will read them to see where to use them or whatever the product is for,” (Household Cleaners, 5PM, TX).

“At the store, I’d look to see that it was for the job I wanted. The next thing I would look for was to see how easy it was to use, was one more complicated than the other. I wouldn’t look at ingredients at that point, but just to see how to use it,” (Household Cleaners, 5PM, FL).

“I’ve learned that I check out the ingredients. I have mixed bleach with ammonia by accident. Because I didn’t read it I just thought I was making me a strong manly cleaner. It cleaned me

right out of my apartment. So I'll [look at ingredients] and if it is not giving me what I need to know, then I'm not going to buy it," (Household Cleaners, 5PM, TX).

"I would read the label the first time I used it. Then probably wouldn't bother with reading the label again until possibly they've changed the format of the label and for some reason it appears to me that it's a new and improved product so then I might look at it again to see what they've done to change it," (Household Cleaners, 4PM, IL).

Users of outdoor pesticides and indoor insecticides appeared more likely than users of household cleaners to read the labels of these products. The moderator felt that this reaction might be in part related to the more complicated tasks of mixing or diluting many outdoor pesticides, or to the perception that pesticides and insecticides have stronger formulations than household cleaning products. People may also read the labels of outdoor pesticides and indoor insecticides more often because these products kill visible "live organisms" and thus may be perceived to be more dangerous than household cleaners.

Participants felt that not reading labels put product users at risk. They mentioned the following potential problems associated with not reading labels:

- # using the wrong product for a specific purpose;
- # not using the correct application process;
- # losing money if the wrong product was purchased;
- # using the improper dilution or mixture;
- # not knowing if protective clothing, goggles etc. were necessary;
- # not being aware of the need for proper ventilation;
- # not knowing how to deal with a problem;
- # causing possible damage to furniture, carpet, wood (inside), or other plants (outside);
- # improperly disposing of a product or container;
- # not knowing how dangerous a product was to use; and
- # compromising the safety of children or pets.

Satisfaction with Current Labels for Products Discussed

Most participants indicated that they were satisfied with existing labels, and they initially offered few suggestions for improving them. When given options for changes, however, they agreed that certain changes might be useful. (These ideas are discussed later in this chapter, in the section "Label Standardization," and in other sections of the chapter, such as "Boxed Formats.")

Which Label Sections Participants Read

Some group participants said they read the entire label. Other participants said that they read specific information or sections of the label that were most important to them. The moderator felt that many, if not most participants, did not regularly read any of the product labels discussed unless they had encountered a problem, but that it was very difficult for participants to admit this, and that there is no direct evidence to support this opinion.

Participants were most likely to read the front of the label, to learn what the product was supposed to do. Participants said that the front label gave them a quick overview of the product, whereas the back contained directions or additional precautionary information, as the following quote shows:

“I just think the front of the product is going to attract the person’s eye, to see if they want to buy that product. I know that when I buy something I’d rather see what it does. I really don’t care what the ingredients are as long as it says that’s what it is going to do. Then I’ll look to the back and see what the instructions are and see what it does and how you do it.”(Household Cleaners, 6:30PM, TX)

Why and When Mini Focus Group Participants Read Product Labels

Participants tended to use product labels on an as-needed basis, as did the consumers interviewed in the Phase I qualitative research. The more familiar a participant was with a specific product, the less likely s/he was to read the label. Consumers discussing household cleaning products indicated that they read these labels infrequently. Indoor insecticide and outdoor pesticide users tended to read these labels more frequently because they did not use these products as regularly (and thus could be assumed to have less familiarity with the label information). Participants tended to read the labels for products that “kill something alive” (i.e., indoor insecticides and outdoor pesticides) more often than they read labels of household cleaners and disinfectants.

Most participants said they first read labels at the store when selecting products. They most often read about the function of the product (what it would do), directions for use, and/or precautionary statements for human health. Some participants also looked at the ingredient listing to ascertain the specific composition of the product, which helped them judge which product was a better buy (e.g., the higher the amount of active ingredients, the more you got for your money). A few participants read the ingredients because they stated that they were allergic to a specific ingredient; however, when asked, they could not name the ingredient to which they were allergic. These people said they would not knowingly buy products that would trigger an allergic reaction for anyone in their family.

Participants stated that, at home, they most often consulted the directions for use.

Locations for Types of Label Information

When discussing the best locations for specific information on a product label, participants said:

- # the front of the product/label should focus on brand and product purpose;
- # basic precautionary information should be on the front of the product, with in-depth information on the back;
- # ingredients should appear on the back of the product (especially for household cleaners), unless this would require the elimination of other information that typically appears on the back. Only comparison shoppers (people who compared ingredients at the time of initial product selection) wanted ingredients on the front; and

- # usage directions, tips, First Aid, and additional precautions should be listed on the back.

Signal Words

This section of the discussion focused on the hierarchy of “signal words” and graphical representations of the signal words. All mini focus group participants had trouble with the concept of a hierarchy of acute toxicity concerns. This hierarchy is intended to convey that CAUTION implies the lowest level of hazard, WARNING somewhat more hazard, and DANGER the greatest hazard. Manufacturers of pesticides, insecticides, fungicides, and rodenticides must list one of these words on the product label, under specific rules established by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Before the hierarchy was explained to them, however, most participants in the mini focus groups thought that the signal word printed on the label was chosen arbitrarily by the manufacturer. In general, participants thought initially that CAUTION, WARNING, and DANGER all meant “Take care and keep out of the reach of children.”

When the concept was explained to them, participants responded positively, as shown in the following statements:

“This is very informational to me. I am amazed.” (Household Cleaners, 8PM, TX)

“I’m less ignorant tonight than I was when I came here because I thought that CAUTION, WARNING, and DANGER were basically semantic terms that people chose to describe something that you needed to look at. I didn’t know that it was a government regulation. I thought they were interchangeable. But when you see them laid out like this you understand that there is actually a difference between the level of danger or safety that you’re experiencing.” (Outdoor Pesticides, 6:30, TX)

Some participants subsequently expressed a preference for products labeled DANGER. This word indicated to them that these products would contain the strongest concentration available, that less would need to be used to get the job done, or that it could be used less often because it was stronger or more effective than a product labeled CAUTION. Other participants, however, stated that they would not use a product labeled DANGER out of fear for themselves, their children, or pets. Some comments about this issue follow:

“The way I see it, DANGER means that it is more potent, so I think it is going to work better. It could have more side effects problems and that is why you’d need to know what the DANGER [meant] or was for.” (Indoor Insecticides 8PM, IL)

“It would be different for me if I had small kids around the house. I know that all of it is dangerous to kids, but if it is color-coded say red, and is [labeled] dangerous, it would make me be more cautious at home. Although still in my mind it would make me think that this product [labeled DANGER] might work better on what I am trying to use it for.” (Household Cleaners, 6:30, TX)

“If you were looking for a safe product you would buy a CAUTION product. If you were looking for something that really cleaned and you were willing to take chances, you’d go for the DANGER product.” (Household Cleaners, 8PM, TX)

Graphical Representation of Signal Words

Several different graphical (visual) representations of the signal words were shown to the groups (Appendix 3-3). The initial representation, which was based on Stakeholder input, showed a horizontal or vertical bar divided into thirds, with the first third light, the second third darker, and the last third almost black. (The first groups saw black and white versions; later groups also saw color versions.) The mock labels were shown to participants in Ft. Lauderdale and Dallas. In addition, participants in the Chicago indoor insecticide groups also viewed graphics of a meter and a thermometer. These participants generally found the meter to be somewhat easier to understand than the bar graph. The meter seemed to be more intuitively obvious of a ranking scale, because it could clearly show the progression from a low to a high level of concern. One participant remarked:

“I like the meter. Because it makes me think of when you’re driving a car and the speedometer. When you are going slower you are safer and when you speed up you get into the danger zone, so I guess I can relate to it in that way.” (Indoor Insecticides, 8PM, IL)

The color gradation of the graphical signal word representation (see Appendix 3-3) was not interpreted by participants as indicating a scale of concern (with light area indicating less concern, and dark areas indicating the most concern). Instead, the darkest shaded area, with the word DANGER in it, stood out for all participants, even when the arrow under the bar pointed to CAUTION or WARNING. Using numbers in conjunction with the signal words only added to participants’ confusion, as the following comments illustrate:

“It is very confusing. I like the control [with one word] better.” (Outdoor Pesticides, 5PM, TX)

“Well, it just makes it like they’re putting on an extra warning or something. Because everyone knows that cleaner, you need to be cautious with. But then you have the extra caution on there, then it makes it seem like maybe there’s something else in there that you don’t know about that might be worse.” (Household Cleaners, 6:30, TX)

Most participants preferred the version that lists only one signal word, with a bulleted precautionary statement below it (Appendices 3-3 — 3-6). Participants felt that this representation would ensure that all outdoor pesticides and indoor insecticides would be treated with the same level of care, no matter which signal word was used.

Some groups saw labels in which the medical concern associated with the signal word was listed below the signal word (Appendices 3-3 — 3-6). Participants who saw this version liked it because they thought it would help them to further identify possible areas of concern regarding improper product use, as this person said:

“Plus it saves you from turning the can around and looking to find out why. Here it just tells you the deal right there.” (Indoor Insecticides, 8PM, IL)

Most participants felt that indoor insecticide and outdoor pesticide labels would benefit most from including medical concerns below the signal word. Household cleaning products were not generally viewed as being as “potentially dangerous” as indoor insecticides and outdoor pesticides. One person put it this way:

“I may apply outdoor pesticides in the same way, but I would have more respect for the application [seeing the signal graph]. I might treat them differently.” (Outdoor Pesticides, 6:30, TX)

Participants in the later sessions (held in Chicago and Dallas) suggested that “color coding” be used for the signal words, which they felt would be superior to black print. They specified the following colors:

- # Yellow for CAUTION;
- # Orange for WARNING; and
- # Red for DANGER.

Education and Outreach about the Signal Word Hierarchy

Overall, participants felt that an extensive educational program would be needed to promote consumers’ understanding of the current signal words:

“Be nice if they spent some commercial money on informing us of the difference between CAUTION, WARNING, and DANGER.” (Indoor Insecticides, 6 PM, TX)

“Now that you’ve explained it that way, I mean I could see why you do this. If that became the norm for everything, I think it would be great. I would look to see the different warnings.” (Household Cleaners, 6:00, IL)

Participants suggested considering the following in developing such a campaign:

- # make sure that labels of product types are consistent (like food labeling information); and
- # use color rather than a black and white representation.

Participants also suggested that manufacturers of these products should include a “scale” on their labels showing the hazard level of the product (such as the graphical representations of the signal words discussed previously). Participants generally felt that manufacturers that do this would be viewed as being more honest. One person said:

“I think if some manufacturer is putting this on there, that corporation has in mind to give as much information that they think people who use it want to know.” (Household Cleaners, 4PM, IL)

Mock Labels Used in Discussions of Signal Words (see Appendices 3-3 — 3-6):

Appendix 3-3: Signal Meter (presented to participants in color)

Appendix 3-4: Outdoor Pesticides — Front 4, Front 5, Front 6, Front 7, Control Front

Appendix 3-5: Household Cleaners — Front 6, Front 7, Front 8, Front 9, Control Front

Appendix 3-6: Indoor Insecticides — Front 8, Front 9, Front 10, Front 11, Front 12, Control Front

Signal Graph Samples

Understanding Directions for Use

Group participants generally preferred that the *Directions for Use* section of the label have the following characteristics:

- # a numbered sequence for directions (when appropriate), because the numbers would suggest the proper order of steps to take in using a product, and because it would be easier for users to find their place again if temporarily interrupted while reading the directions for use;
- # all text for a step kept to one line, instead continuing (“wrapping”) onto multiple lines;
- # more “white space;” and
- # avoidance of unnecessary words and descriptions.

Participants in the Outdoor Pesticides groups talked about the sample heading “Responsible Use” (Appendix 3-4 — Label sample 10 Back). Many participants thought this language was intimidating and “talked down” to consumers, as the following person stated:

“To me ‘Responsible Use’ makes it a little scarier, a little insulting. Responsible use implies that maybe you are irresponsible, maybe you shouldn’t be messing with this stuff.” (Outdoor Pesticides, 5PM, TX)

Group participants were also asked to provide feedback about possible alternate wording for precautionary statements. One statement in each pair is typical of current label language, and the other statement is a possible alternative to the current statement. Participants generally preferred usage directions that included a specific time frame linked with a directional step. The statement that was preferred by more participants is shown in italics, with “X” indicating a placeholder for a number.

Statements tested:

Repeat as needed.

Preferred: Apply no more than "X" treatments per week.

Do not allow children or pets to contact treated areas.

Preferred: Keep children or pets out of treatment area for "X" minutes.

Participants thought it was appropriate to put directions for use on the back label, as currently done. They preferred the front label to be as uncluttered as possible, for aesthetic reasons.

Mock Labels Used in Discussions of Directions for Use (see Appendices 3-4 — 3-6):

Appendix 3-4: Outdoor Pesticides — Back 9, Back 10, Back 11, and Control Back

Appendix 3-5: Household Cleaners — Back 10, Back 11, and Control Back

Appendix 3-6: Indoor Insecticides — Back 6, Back 7, and Control Back

Precautionary and Other Label Statements

As in the discussion of the label section on Directions for Use, group participants preferred to have precautionary statements presented in bullet points, each limited to one line of text. They found one-line statements to be easier to read than statements that continue onto more than one line. Similarly, participants preferred to have all language for the precautionary statements in the same column of text on the label. They found it difficult to follow text that wrapped from the bottom of the left-hand column to the top of the right hand column.

Participants were also asked to provide feedback to different pairs of precautionary language statements. One statement in each pair is typical of current label language, and the other statement is a possible alternative to the current statement. In general, participants preferred statements that used “simple” and specific language.

Statement tested:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Preferred: For safe and effective use read the label first.

Some participants commented:

“It [second statement above] sounds friendlier, it doesn’t intimidate me, and gets to the point.” (Indoor Insecticides, 8PM, IL)

“Is there really an insect police? It says it’s a violation of Federal law to use this product in a manner inconsistent with—. Are the police going to come to your door and say you sprayed it from fourteen inches, and you’re going to jail.” (Indoor Insecticides, 4PM, IL)

“It [first statement above] is like pushing me around. Right away I am intimidated.” (Outdoor Pesticides, 8PM, IL)

Statement tested:

Hazards to humans and domestic animals.

Preferred: Hazards to humans and animals.

One person commented:

“I would say domestic is just a word that doesn’t need to be there.” (Household Cleaners, 6:30, TX)

Statement tested:

This product is toxic to aquatic invertebrates

Preferred: This product can kill aquatic insects, shrimp, crabs, and crayfish.

Statement tested:

This pesticide is toxic to wildlife.

Preferred: This product can kill wildlife.

Statement tested:

This pesticide is toxic to wildlife and domestic animals

Preferred: This pesticide may harm pets and wildlife.

One comment follows:

“I think laymen’s terms are easier to understand for most people as opposed to words like toxic which may be confusing.” (Outdoor Pesticides, 8PM, IL)

Statement tested:

Do not apply where runoff can occur.

Preferred: Do not use on sloped areas when heavy rain is expected.

Mock Labels Used in Discussions of Precautionary Statements

(see Appendices 3-4 — 3-6):

Appendix 3-4: Outdoor Pesticides — Back 8, Back 9, back 10, and Control Back

Appendix 3-5: Household Cleaners — Back 4, Back 5, and Control Back

Appendix 3-6: Indoor Insecticides — Back 4, back 5, Control Back

Listing Ingredients

Many participants said that they never read the ingredients on outdoor pesticides, household cleaners, or indoor insecticides because they had no idea what this information means. They agreed that adding concise and simple language explanations of ingredients (to describe the role of specific ingredients) would be beneficial. Explanations would give the average consumer a better understanding of the need for specific ingredients in a product's formulation. One participant commented:

"Maybe I guess that is why some people don't even care about reading the ingredients because you don't know half of the stuff they list on there. So if they have something like this [simple language explanations] then maybe I could say 'okay, well then they're going to tell me what this or that means.' Then I could actually say I am going to actually read what is there. But if I don't know what it means, then I'm not going to bother with reading it." (Indoor Insecticides, 8PM, IL)

"Some of these ingredients are like \$50 words that only a scientist knows what it means, and then right next to it they give you the percentage and like what does that mean to me? In other words, it would be nice if they could put it in plain and simple terms that an ordinary person could understand." (Household Cleaners, 4PM, IL)

Even though most participants did not know the purpose of the ingredients in outdoor pesticides and indoor insecticides, they wanted full disclosure of ingredients in case of an emergency. By having this information on the label they felt that they would be able to quickly obtain the correct medical advice for dealing with a possible problem. They seemed to feel that outdoor pesticides and indoor insecticides are "stronger" because they often list specific directions for use, special clothing, tools, or timing of application, and because they kill "visible" organisms. Although household cleaners also may kill bacteria, participants did not consider these products to be as strong or potentially "dangerous" as outdoor pesticides or indoor insecticides.

Participants liked the idea of manufacturers giving Poison Control Centers a list of ingredients for specific products. They thought this would be more efficient than having a person read the contents to Poison Control. They also indicated, however, that this would not eliminate the need for ingredients to be listed on the label.

Location of Ingredients Information

Participants who discussed household cleaning products thought it was quite acceptable for manufacturers to list ingredients on the back label. They felt that the front label of these products should focus on selling the brand. One participant stated:

"I didn't realize there was nothing on the front. But I like the clean look of the front of this package. I like all of this [ingredients] on the back. I do like that you have the other ingredients [listed] so that if somebody on a poison hotline were to say 'What else is in the product?' I have them [the ingredients] all here. I really don't care what percentage [are used for the ingredients]. (Household Cleaners, 5PM, TX)

On the other hand, participants for the outdoor pesticides and indoor insecticides categories were divided about whether the front or back label would be a better location for ingredients. Participants who compared ingredients when choosing products particularly liked seeing ingredients on the front label.

Mock Labels for Discussions of Ingredients (see Appendices 3-4 — 3-6):

Appendix 3-4: Outdoor Pesticides — Front 1, Front 2, Back 3, and Control Front

Appendix 3-5: Household Cleaners — Front 1, Front 2, Back 3, and Control Front

Appendix 3-6: Indoor Insecticides — Front 1, Back 2, Front 3, and Control Front

Boxed Formats

Boxing information (i.e., putting a box border around the text) was perceived by mini focus group participants to be a very positive change to current label design. Participants said that a box would have a visual impact because it would draw one's eye to that area on a container. Participants felt that consumers would interpret boxed information as being the most important, such as directions for use, precautions for human health, or First Aid. Boxes that were stacked vertically seemed to work better than side-by-side boxes. Representative comments follow:

"It's the way all the nutrition information was suddenly put on food bags and boxes. When that happened I was glad to see it because it did make me read it more often because it was so much clearer. It was more distinctive and that's what this makes me think of. I'm likely to read this because it's more distinctive. Somebody took the time to lay it out clearly because they felt it was important for me to read." (Household Cleaners, 4PM, IL)

"You know, even though you're supposed to read the whole label, if you cheat and don't [read the whole label] you'd better read the box." (Outdoor Pesticides, 5PM, TX)

"Boxing shows me that for some reason it needs some prominence, or the manufacturer has given it prominence for some reason and I need to pay particular attention to the things in those boxes." (Outdoor Pesticides, 5PM, TX)

Participants also pointed out that too many boxes on a label might dilute the visual impact. They felt that only the most important information on a product should be boxed. Participants thought that boxing First Aid information was a particularly good idea because:

- # it was easy to read,
- # it identified a problem and gave a simple answer,
- # it stood out from the other important information on the label,
- # it was boldly presented, and
- # it had more white space around the text.

Some focus groups were shown an "integrated" or "combined" label (Appendices 3-4 — 3-6), which used a variety of formats for different sections of the label. By incorporating bullets, boxes, white space, etc., the label became more interesting visually. One participant commented:

“I like the mixing of information so that things can be located more easily. Especially if they were consistently done between products. [For example] if the hazardous information is boxed always, and the usage directions are bulleted you would have a better idea of how to find it [this information]. But even if it were not consistent I think by having white space and having areas of information in different formats that it would be easier to read. It’s just easier to read.”
(Household Cleaners, 4PM, IL)

Mock Labels for Discussions of Boxed Formats (see Appendices 3-4 — 3-6):

Appendix 3-4: Outdoor Pesticides — Back 12

Appendix 3-5: Household Cleaners — Front 12, Back 13, Front and Back of Control

Appendix 3-6: Indoor Insecticides — Back 13, Back 14, Back 15, Integrated Label

Separate Pamphlet

The idea of using a removable pamphlet to provide product information, such as the pamphlets that are included with some outdoor pesticide products, was not favored. Most participants preferred to see all the information presented on the container itself. Their reasons included the following:

- # the sample pamphlet had too much information and tended to inhibit reading;
- # since these products are generally kept outside, the pamphlet could easily be lost or damaged; and
- # because many of these products need to be mixed with water, the pamphlet could be damaged by contact with water.

Participants generally liked the highlighted heading that was used on the outdoor pesticide pamphlet. This design feature seemed to help participants locate a specific topic area on the product, and also made the label look clean and organized.

Label Standardization

Many participants thought that a standardized label format (e.g., each product having the same kind of layout, putting specific sections in the same place on all labels, using the same typeface) would be helpful for the categories of products addressed in this research, because this might encourage consumers to read labels more often or to read more of the label. Participants put it this way:

“I would think [it could possibly have an effect on using the product more safely and effectively] because you know where to find all your information real quick. Since you know where to find it you don’t have to worry so hard about looking for it. When you look hard for it, it will discourage you from reading it. It’s something that is simple, easy, right there. If you know where it is you’re going to read it.” (Household Cleaners, 8PM, FL)

“You know what would really be wonderful, just kind of pie in the sky. You know how they do on the nutritional labels, they’re all the same for all food products. Wouldn’t that be great to have something like that on cleaning product labels. [They could include] toxicity levels, and maybe strength levels.” (Household Cleaners, 8PM, TX)

Participants were very consistent in their desire to have labels that are easier to read, and were especially interested in changes that would decrease clutter and increase readability. The most frequent suggestion for all categories of labels was to use larger type that is easier to read. Many participants had difficulty reading the small print on labels and felt this change would save time and encourage label reading. Some people felt that the size of the print suggested the relative importance of the information, with larger type indicating more importance than smaller type.

Participants suggested the following specific format changes:

- # use a larger type size (font);
- # use bold lettering or an easy to read font style;
- # use bullet points for text, and keep sentences short and all on one line;
- # use numbers for directions when appropriate;
- # use simple language. Be direct, brief, and to the point;
- # include more white space;
- # box important information for quick and easy reference;
- # provide a rationale for using a product in a particular manner. (For example, say “For safe and effective use read the label first” instead of “It is a violation of Federal law to use this product in a manner inconsistent with its labeling”);
- # give specific time references, such as “Apply no more than ‘X’ treatments per week” or “Keep children or pets out of treatment area for ‘X’ minutes;”
- # list a Poison Control 800 (toll-free) number. (Prior to the mini focus groups, many participants had not been aware that they should call Poison Control first rather than their doctor or a hospital);⁷
- # highlight topic or section headings; and
- # print the caution hierarchy in color.

Some relevant comments made by participants follow:

“I think the [printing on the label] should be made a little larger. Sometimes you just look at it and you don’t see it because it is so small print.” (Household Cleaners, 5PM, FL)

⁷ At the time this report was written, no single national or central toll-free number existed for Poison Control.

“Something that just caught my eye, having little ones, is maybe put that number [for Poison Control] right on the can.” (Household Cleaners, 5PM, FL)

“If you have the text wrapped, you are more likely to miss something important. When you are shopping you’re certainly going to take the one that is clearer [looking] that you can understand. With the other one you are going to get frustrated and you’re just going to put it right down and say I haven’t got time to go through this.” (Household Cleaners, 5PM, FL)

“It looks like it [the Control Label] is more complicated because it looks like there is so much more in there. It looks like it is more dangerous than it needs to be. Whereas if it is set up in a simple and concise format that you can read and understand, it does not look as bad.” (Household Cleaners, 5PM, FL)

“If it is neater and laid out better, I’d be more prone to read the whole thing.” (Household Cleaners, 5PM, FL)

“I like bolded key words and I like bullets under each bolded word. It kind of separates things.” (Household Cleaners, 4PM, IL)

Many participants said that if the design/format changes discussed above were implemented, they thought that consumers might read these product labels more often, might read more parts of labels, and would be able to find information on labels more easily and quickly.

Participants also suggested that making such changes might improve the public image of manufacturers, who would be perceived as being more honest with consumers by presenting their products in a forthright manner.

Logos for the “Read the Label *FIRST!*” Campaign

Various drafts of possible logos to support a “Read the Label *FIRST!*” Campaign (see Appendix 3-7) were presented to the mini focus groups to obtain feedback from consumers about the logo designs and about effective ways to reach consumers and motivate them to read the labels of these types of products. (Most participants said that they thought such a consumer campaign would be a good idea in general, but that it might not really be meant for *them* because they already read labels.)

The groups were asked whether any of these logos would be “more compelling” for them on the label of an outdoor pesticide/household cleaner/indoor insecticide. They also were asked whether they had any emotional ties to any of the logos, and what other factors besides the logo and the “Read the Label *FIRST!*” slogan would motivate them to read labels on these products. They were also asked if they would be significantly more motivated to read the directions for use and the precautionary statements if they understood that doing so would allow them to use the product more safely and effectively. To place the discussions in context for participants, the moderator talked about another public service campaign, the “Buckle Up for Safety” Seat Belt campaign, and asked people some questions about their memories of and reactions to this campaign.

Participants said that child safety, pet safety, personal safety, and correct product use were the main reasons they would read the label on an outdoor pesticide, household cleaner, or indoor insecticide. They also said that they might be *fearful* that the following things could happen if they did not read a label:

- # they might use the product improperly if they did not read directions for use;
- # they might use the product for the wrong reason;
- # someone (the user or a family member) might have an allergic reaction to a specific ingredient(s);
- # the environment might be harmed; and
- # personal property might be damaged.

Participants indicated that for a logo to be compelling, it would need to reinforce some of these emotional reason(s) for reading labels. Participants felt that none of the logos presented truly communicated such an association. Of the drafts they reviewed, they preferred the octagonal shape (Appendix 3-7) because of its association with the meaning of a stop sign: “*Stop. Look and listen.*” Nevertheless, they said that this logo did not arouse any empathy or emotional drive directed toward children and/or pets.

Participants were also asked for outreach suggestions to educate consumers about the “Read the Label *FIRST!*” Campaign. Their ideas included a variety of media: a sticker on the product, school education programs, TV public service spots, and grocery aisle promotions.